The comparison effect of ondansetron and Metoclopramide in thereducing of nausea and vomitting after loparoscopic cholescistectomy

Abstract

Background: Postoperative nausea and vomiting (PONV) is a side effect of anesthesia. Without prophylactic intervention, PONV by about one-third of patients (10 to 60%) under general anesthesia occurs. PONV consequences include delayed discharge from PACU (post anesthesia care unit), unpredictable hospital readmission, increasing the risk of pulmonary aspiration and significant postoperative discomfort. PONV can be more uncomfortable than postoperative pain. The aim of this study was to compare the efficacy of ondansetron and metoclopramide in reducing nausea and vomiting after laparoscopic cholecystectomy.

Materials and methods: In this study, 90 patients (in Imam Khomeini Hospital in 2011) undergoing laparoscopic cholecystectomy were randomly allocated into three equal groups (n=30) and were equally under continuous intravenous anesthesia. Before induction of anesthesia ,for patients in the first group(M) 10 mg metoclopramide (increased volume to 2cc) and in the second group(O) 4 mg intravenous ondansetron (increased volume to 2 cc) and for control group (P) 2 cc normal saline were injected. Anesthesia complications and nausea and vomiting after surgery in recovery room and 6 and 24 hours after surgery were evaluated. Data collected by questionnaires and the data were extracted and analyzed by Spss software with chi-square test and analysis of variance (ANOVA).

Results: The incidence of nausea in control group was 66.7 %, in metoclopramide group was 43.3 % and in ondansetron group was 33.3 %. The difference between control and intervention groups and between metoclopramide and ondansetron groups statistically significant (p=0.03 and p=0.03).The incidence of vomiting in control group was 56.7 %, in metoclopramide group was 20% and in ondansetron group was 26.7% and there was statistically significant difference between control and intervention groups and between ondansetron and metoclopramide groups (Respectively p=0.008 and p=0.01).

Conclusion: For prevention of nausea and vomiting after laparoscopic cholecystectomy, both metoclopramide and ondansetron are effective, but in preventing nausea the effect of ondansetron is greater than metoclopramide , and the effect of metoclopramide in preventing vomiting is more than ondansetron .

Key words: Ondansetron, Metoclopramide, Cholecystectomy, Laparoscopy, PONV